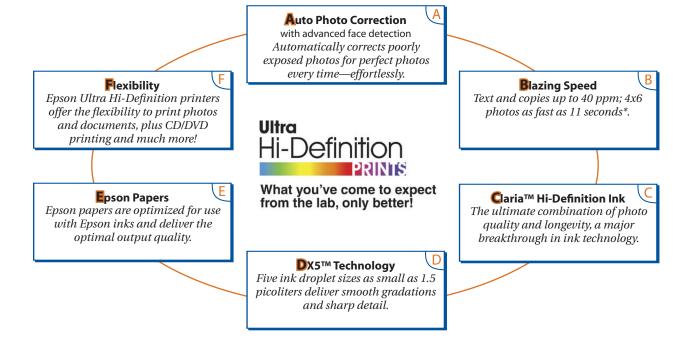


Technical Brief

With Epson Ultra Hi-Definition printers, customers can bring their ideas to life—whether they're photos or everyday documents. Many printers claim to be photo printers, but the Epson Ultra Hi-Definition models deliver photos with the clarity, sharpness and detail unmatched by competitive printers and even the photo lab. Ultra Hi-Definition prints deliver what customers have come to expect from the lab, only better.

Ultra Hi-Definition prints are achieved through a combination of technologies. Just remember the "ABCDEF's" of Ultra Hi-Definition Printing:



Epson Ultra Hi-Definition printers deliver:

gamut

Incredible color

Smooth gradations

Long-lasting prints

and sharp detail



Optimized skin tones

Photos with richness, depth, and clarity—

It's easy to recognize the Ultra Hi-Definition printers—the Ultra Hi-Definition logo is clearly visible on all point of sale materials and the product boxes.

Color photo speed for the R280, RX595, RX680. Black/color text speed for the RX680. Pages/copies per minute (ppm/cpm) speed measured after first page, based on black and color text patterns in Draft Mode on plain paper. Color photo in Draft Mode on Premium Photo Paper Glossy measured from start of paper feed. Additional print time will vary based on system configuration, software application and page complexity. See www.epson.com/printspeed for more information about speeds.

Epson Sales Training 9/2007

The ABCDEF's of Ultra Hi-Definition Prints—Auto Photo Correction*



Auto Photo Correction with advanced face detection is an automatic system that corrects photos, making it easy to produce beautiful prints at home. It's the ideal solution for customers who:

- Are disappointed in results when printing photos at home
- Believe the only way to get beautiful photo quality results is at a photo finishing lab
- Don't want to mess with complex image editing software
- Tend to end up with photos that are dark due to exposure problems from improper lighting or photos taken without a flash

At a high-end lab that processes film or digital photos, a technician may make adjustments to enhance the photo. Most photos today, however, don't get any adjustment and bad photos remain bad. Epson's Auto Photo Correction optimizes digital photos (whether printed directly from a digital camera, memory card, or from the computer). It doesn't alter the original image file; it analyzes the photo and corrects it for printing (just how the photo lab doesn't alter the negative, only the resulting print). With Auto Photo Correction, it's like having a lab technician inside the printer but better!

How is it better? In the photo lab, color balance is usually adjusted in red tones to produce healthy-looking skin color, however, this adjustment could have negative influences to the color of the entire photo. Auto Photo Correction with advanced face detection analyzes digital photos, then applies the appropriate optimization to suit the content of the entire image:

Before: Backlit, underexposed subject



Before: Bland, ordinary color



Before: Washed-out night scenes



Before: Undesirable color casts



Auto Photo Correction is available on Windows and Mac OS X 10.5 or later. See www.epson.com/support to download the latest Mac OS X 10.5 drivers.

The ABCDEF's of Ultra Hi-Definition Prints—Auto Photo Correction (continued)



What's more, Auto Photo Correction doesn't need to be turned on or off—it's automatically enabled when printing on glossy and matte photo papers. Plus, with the new RX680 Ultra Hi-Definition All-in-One, customers can even preview the corrected image on the LCD before printing.

LCD Before Auto Photo Correction Preview



LCD with Auto Photo Correction Preview



Auto Photo Correction produces beautiful, professional-quality results at home and offers these advantages:

- Get great results, even for photos deemed not worthy to print
- No need to spend time trying to fix photos and learn complicated photo editing software—it's automatic
- Subjects and backgrounds are appropriately balanced
- · Color results are consistent; color results from a lab depend on the individual lab technician

Red eye correction is a separate feature and is either selected via bundled software, or, on select models can be enabled on the printer's control panel when printing photos without a computer. The following chart summarizes the availability of these features on the Epson Ultra Hi-Definition printer models:

Ultra Hi-Definition Printer/	Auto Photo Correction		Red Eye Correction		
All-in-One	Printer Driver*	PC-Free	Bundled Software	PC-Free	
R280 Photo Printer	X		X		
R380 Photo Printer	X	X	X	X	
RX595 Photo All-in-One	X	X	X	X	
RX680 Photo All-in-One	X	X	X	X	

^{*} Auto Photo Correction is available on Windows and Mac OS X 10.5 or later. See www.epson.com/support to download the latest Mac OS X 10.5 drivers.





The ABCDEF's of Ultra Hi-Definition Printing—Blazing Fast Print Speeds

B

The Ultra Hi-Definition printers have incredible print speed, blazing through not only photos, but text documents, too.

Not only do these models have super-fast draft photo print speeds that compare favorably with competitive print speeds, they also maintain fast speeds when using the printer's default settings to produce better-than-lab-quality prints—the mode most customers will use to print photos.

With some competitive models, speeds are highly dependent on the specific paper used.

The Epson Ultra Hi-Definition printers also have fast text speeds making them suitable for printing not only photos, but also everyday documents:



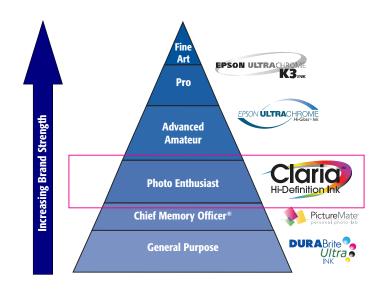
Print Speed ¹	R280	R380	RX595	RX680
	Ultra Hi-Definition	Ultra Hi-Definition	Ultra Hi-Definition	Ultra Hi-Definition
	Photo Printer	Photo Printer	Photo All-in-One	Photo All-in-One
Draft Photo Speed 4x6	As fast as 11 seconds	As fast as 13 seconds	As fast as 11 seconds	As fast as 11 seconds
Default Photo Speed 4x6 (for better-than- lab-quality photos)	As fast as 25 seconds	As fast as 32 seconds	As fast as 25 seconds	As fast as 21 seconds
Black Text	Up to 37 ppm	Up to 30 ppm	Up to 37 ppm	Up to 40 ppm
Color Text	Up to 38 ppm	Up to 30 ppm	Up to 38 ppm	Up to 40 ppm

Draft photo speed in Draft Mode and Default photo speed in Photo Mode on Premium Photo Paper Glossy measured from start of paper feed. Pages per minute (ppm) speed measured after first page, based on black text and color text patterns in Draft Mode on plain paper. Additional print time will vary based on system configuration, software application and page complexity. See www.epson.com/printspeed for more information about print speeds.

The ABCDEF's of Ultra High Definition Prints—Claria Hi-Definition Ink

Epson continually innovates ink solutions tailored to the needs of specific users instead of offering a one-size-fits-all ink solution. Whether the customer is most interested in the everyday printing of documents and photos, is an amateur photographer looking to primarily print photos with stellar image quality and durability, or is a professional photographer staking his reputation on breathtaking large format prints, Epson has the right ink for the job.

Claria Hi-Definition Ink is a breakthrough ink that delivers brilliant and long-lasting photos. It's optimized for consumers who are most interested in printing photos with the flexibility to print everyday documents. Claria ink delivers a compromise-free solution to this customer: Photographic durability equivalent to or better than lab prints, but with color saturation and brilliance that surpasses the lab.



1. Durability equivalent to or better than lab prints: Claria Hi-Definition Ink offers a major improvement in longevity versus previous dye-based inks. Claria Hi-Definition Ink will stand up to display, album storage, and handling, with these enhanced durability benefits:

Smudge-Resistant Photos

The quick-drying formula allows photos on Epson photo papers to be handled immediately after printing. Many competitive dye-based printers require one specific paper for quick drying properties.

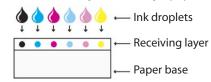


On photo papers, Claria ink won't smudge like this competitor's print

Scratch-Resistant Photos

Because Claria Hi-Definition Ink is a dye-based ink set where ink is absorbed into the receiver layer of photo papers, photos on Epson photo papers are resistant to scratches caused by handling.

Cross-section of coated ink jet paper



Water-Resistant Photos

Claria ink photos resist smudging related to high levels of humidity, moisture and water spillage on Epson photo papers. With competitive photos, this isn't the case, posing a danger for customers who don't save print, caused when wiping digital files.



Look at the smudge on the girl's face on this competitive spilled water from the print

Fade-Resistant Photos

Claria ink has fade resistance more than 2-4 times longer than photo lab prints. Claria photos resist fading up to 98 years in a glass frame and about 200 years in an album.*



Claria ink is smudge, scratch, water, and fade resistant on Epson photo papers. For CDs/DVDs, the ink is resistant only on specially-treated discs.

Ink fade resistance ratings based on accelerated testing of prints, on specialty media, displayed in a glass frame in indoor display conditions or in album storage. Actual print stability will vary according to media, printed image, display conditions, light intensity, temperature, humidity and atmospheric conditions. Epson does not guarantee the longevity of prints. For maximum print life, display all prints under glass, UV filter or lamination or properly store them. Visit www.wilhelm-research.com for the latest information.

The ABCDEF's of Ultra High Definition Prints—Claria Hi-Definition Ink (continued)



2. Great output quality: Claria ink offers these quality advantages:

High color saturation and brilliance

Claria ink delivers a wide color gamut because ink is absorbed into the surface coating of Epson photo papers, allowing light to reflect evenly off the surface. This results in the best quality photographic prints.

Receiving layer
Paper base

Smooth gradations

The six-color ink set including Light Magenta and Light Cyan inks allows tonal gradations critical for photography.



Precise color and shadow detail

A high-density black ink optimized for photography delivers:

- Rich, deep blacks in photos and text
- Superior contrast in printed photos
- Incredible shadow detail
- · More vivid colors
- Superior highlight and shadow detail



Some competitive printers don't use true black ink in photos and instead use composite black (combining three color inks to produce black). This results in bluish/brownish blacks and images with lower contrast.

The high-density black ink is ideal for photos, yet also produces rich, dark text and graphics, making it suitable for everyday printing, too.

3. Convenience: Claria ink is designed for the photo enthusiast who wants to print incredible photos, yet also wants the flexibility to produce everyday documents.

Claria ink offers convenience to this customer with:

- Convenient individual ink cartridges*—With individual ink cartridges, customers take control of ink usage, replacing only the color that's needed.
- New, easier to identify packaging—Cartridges are now numbered, so all a customer needs to remember is the ink number
- High-capacity cartridges available—The high-capacity "77" cartridges don't need to be replaced as often.



- * Cartridge yields vary considerably based on images printed, print settings, paper type, frequency of use and temperature. For print quality, a small amount of ink remains in the cartridge after the "replace cartridge" indicator comes on. See www.epson.com/cartridgeinfo for more information about cartridges.
- **4. Flexible Media Choices:** Claria ink produces its best output quality on glossy and matte papers, and good output quality on plain paper. It's optimized for these Epson papers:

Presentation and Plain Papers	Photo Papers	Specialty Papers
Ultra Premium Presentation Paper Matte Premium Presentation Paper Matte / Premium Presentation Paper Matte Double-sided Presentation Paper High Quality Ink Jet Paper Bright White Paper Plain paper	 Ultra Premium Photo Paper Glossy Ultra Premium Photo Paper Luster Premium Photo Paper Glossy Premium Photo Paper Semi-gloss Photo Paper Glossy 	Iron-on Transfer Paper Photo Quality Self-adhesive Sheets Ink Jet Transparencies PremierArt™ Matte Scrapbook Photo Paper for Epson

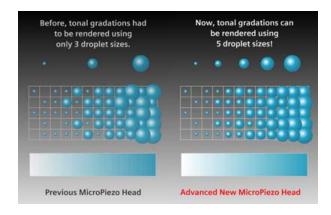
The ABCDEF's of Ultra Hi-Definition Prints—DX5 Technology

D

Epson Ultra Hi-Definition printers use Epson's patented MicroPiezo® print head with DX5 technology that delivers five sizes of ink droplets as small as 1.5 picoliters.

Because printed "dots" are comprised of a number of ink droplets, DX5 technology allows Epson Ultra Hi-Definition printers to produce a greater combination of ink droplets, resulting in:

- Smoother gradations
- Grain-free prints
- More color combinations
- Sharper detail



Epson MicroPiezo print head technology also has these advantages over competitors who use thermal technology:

Epson MicroPiezo Technology	Competitors Thermal Technology
"Smart" nozzles	"Static" nozzles
One nozzle can produce multiple ink droplet sizes	One nozzle can only produce one size ink droplet
"Fast" nozzles	"Slow" nozzles
Higher firing frequencies	Lower firing rates
Bottom Line: Only Epson offers state-of-the-art technology (5 ink droplet sizes per nozzle)	Bottom Line: Competitors have more nozzles because they need more nozzles. They need multiple print heads or print heads with different nozzle sizes to produce multiple ink droplet sizes

With an intelligent nozzle design and ink color selection system, Epson Ultra Hi-Definition printers deliver an unprecedented five sizes of ink droplets with fewer nozzles on the print head—and still produce blazing speed. Competitive printers can't come close to the ink droplet combinations available with DX5 technology.

DX5 technology allows Epson Ultra Hi-Definition printers to produce high print quality without sacrificing print speed:

Smallest ink droplets produce smooth photos, especially beneficial for highlights and detailed areas



Variable sizes and colors combine to achieve more tone representations for smoother gradations

Large droplets are used in dense coverage areas allowing faster print speeds

Did you know? It's easy to remember what DX5 stands for: Droplets x 5.

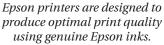
The ABCDEF's of Ultra Hi-Definition Prints—Epson Papers



Epson innovates ink formulations that work together as a system with award-winning printer technology and a broad range of papers. All components are designed to work together to produce the best results.









Epson papers are optimized for Epson inks, but also work with other brands of ink jet printers.

Epson printers + Epson Inks + Epson Papers = Epson Quality

These components are designed to work as a system to deliver the highest image quality and longevity.

Epson is the brand overwhelmingly preferred by professional photographers. With a complete solution, Epson is able to satisfy customers with the image quality, versatility, and ink and paper solutions that let pros and artists trust their livelihoods and reputations with Epson prints.

Ultra Hi-Definition Printers are optimized for the widest array of Epson papers, from presentation papers to photo papers and even specialty papers (such as iron-on transfers, self-adhesive sheets, transparencies, and more). For the complete guide to Epson papers, download the Ink Jet Media Reference Material from the Knoware University® library.

With Epson printers, inks, and the wide choice of papers, customers have the tools to be creative.

The ABCDEF's of Ultra Hi-Definition Prints—Flexibility



Epson Ultra Hi-Definition printers have the flexibility to print photos and documents, plus also feature:

Flexibility Feature		R280	R380	RX595	RX680
Auto Photo Correction Automatically corrects poorly exposed photos for perfect photos every time—effortlessly	Print Street 100 1 Capies To Short 1 La hy the la it	X	X	X	X
Auto Photo Correction with LCD Preview Preview the result of Auto Photo Correction right on the LCD before printing!	See Superior Volume 1				X
Direct CD/DVD Printing Ink jet-printable CDs are easy to use, don't damage data, and are reliable in CD drives		X	X	X	X
BorderFree® Printing 4x6, 5x7, 8x10, Letter Prints come out of the printer ready to share, frame or place in an album		X	X	X	X
PC-free printing Easy to print digital camera photos without a PC	32		X	X	X
PC-free archiving Easily print from or save photos to a USB Flash drive, CD-R, or ZIP® drive			X	X	X
Large color LCD Easily view, select and crop photos	Zin Dut Chlove		X	X	X
Exclusive Print by Date Easily locate photos and conveniently browse large memory cards	Print by Dato Print photos teken on specific dates. (3) Proceed CO Select		X	X	X
Print movie frames View and print images from MOV, AVI, and MPEG videos captured with a digital camera	Five Nove and First Rooten Five Nove and First Rooten Five Nove and First Rooten In a nove Exame with a digital Court. Throoten O'O'n lock Throoten O'O'n		X		X
PC-free greeting cards Easily create greeting cards by merging photos from a memory card with items on the scanning bed	Supply Adulase Put Smith			X	X
Scan to PDF Capture photos and documents for easy sharing—with or without a PC	Commit DPUF Scan fina : fluto Cropping Original : Text Bushly : Standard Heavy Casacity 0/8 (KiScan S Back			X	X
PC-free photo restoration Restore color to faded photos—when making reprints from originals—even without a PC!				X	X
Two input trays Conveniently handle different types and sizes of papers	With the February Francisco Fra				X
Auto duplexing Convenient and easy-to-use, plus saves paper and money	and the second second				X

Summary

Ultra Hi-Definition Prints are specifically targeted to the photo enthusiast who is looking for premium photo quality, a rich feature set, and the flexibility to print photos and everyday documents. Epson Ultra Hi-Definition printers outperform lab prints and competitive photo printers (ranked Good-Better-Best):



Feature	Epson Ultra Hi-Definition Printers	Lab Prints	Competitive Photo Printers
Quality	Best With Claria ink and auto photo correction, customers get optimized results—right at home!	Better Lab operator adjustments can produce good skin tone, but depends on the individual's skill. Sometimes scenery is red because adjustments made for skin tones affect the overall image.	Better Epson Ultra Hi-Definition prints are achieved through a combination of factors, and no competitive model offers a comparable printing system with the same level of clarity, sharpness, and detail.
Durability	Better Photos are smudge, water, scratch, and fade resistant on Epson photo papers. Photos resist fading more than 2-4 times longer than photo lab prints—up to 98 years in a glass frame and about 200 years in an album.*	Good Although many customers believe the photo lab produces the longest-lasting photos, it's just not true! Wilhelm Imaging Research shows fade resistance of photo lab prints to be 19-40 years. See www.wilhelm- research.com for the latest information.	Good Some models may achieve good fade resistance, but only on one specific paper type. Most competitors models are weak on smudge, water, and scratch resistance.
Speed/ Convenience	Best Prints a 4x6 photo as fast as 11 seconds in draft mode and produces quality photos in default mode as fast as 21 seconds. Also produces black/ color text up to 40 ppm**.	Better Requires a trip to the lab plus wait time and printing time. Or, if ordering prints online, customers must endure shipment time and pay for shipping charges.	Better Draft speeds may be super fast. On some models, speed is greatly dependent on using a specific paper type.
Flexibility	Best Photos can be shared immediately and can be created on a variety of papers and sizes (4x6, 5x7, 8x10, and Letter) and even CDs and DVDs—right at home, anytime and on any schedule. Built-in features such as auto photo correction and photo restoration are done without additional time or expense.	Good Customer must go to the photo lab where paper choices are limited. Enlargements and special lab features such as Kodak Perfect Touch prints cost a premium to select. Photo restoration is also a separate item and expense.	Good No other printer offers Epson's combination of image quality and longevity. Plus, they don't offer the wide selection of paper sizes or types that Epson provides, and may require purchasing special ink cartridges to achieve photo results.

^{*} Ink fade resistance ratings based on accelerated testing of prints, on specialty media, displayed in a glass frame in indoor display conditions or in album storage. Actual print stability will vary according to media, printed image, display conditions, light intensity, temperature, humidity and atmospheric conditions. Epson does not guarantee the longevity of prints. For maximum print life, display all prints under glass, UV filter or lamination or properly store them. Visit www.wilhelm-research.com for the latest information.

Speeds quoted are for the RX680. Pages per minute (ppm) speed measured after first page, based on black text and color text patterns in Draft Mode on plain paper. Color photo on Premium Glossy Photo Paper in indicated modes measured from start of paper feed. Additional print time will vary based on system configuration, software application, and page complexity. See www.epson.com/printspeed for more information.

Summary (continued)

Epson Ultra Hi-Definition photo printers and photo all-in-ones include the following models (for more information on positioning these models, refer to the Knoware Ink Jet Printer Reference Material):

R280 Ultra Hi-Definition Photo Printer



R380 Ultra Hi-Definition Photo Printer



RX595 Ultra Hi-Definition Photo All-in-One



RX680 Ultra Hi-Definition Photo All-in-One



Epson, Epson Stylus, Epson Exceed Your Vision, MicroPiezo, Epson UltraChrome K3, Epson UltraChrome Hi-Gloss, PictureMate, and Claria are registered trademarks or trademarks of Seiko Epson Corporation. DX5, DURABrite, Chief Memory Officer, Knoware University, and BorderFree are registered trademarks or trademarks of Epson America, Inc. Other product names used herein are for identification purposes only and may be trademarks of their respective owners. Epson disclaims any and all rights in those marks. Specifications subject to change.

©2007 Epson America, Inc.